

## CHEMISTRY

### CLASS-12

#### Colligative properties

**Q1.** Why Elevation of boiling point is a colligative property?

**Q2.** Define  $K_b$ .

**Q3.** Fill in the blanks:

- a) The ..... in boiling point of a solvent is directly proportional to the ..... of the solution.
- b) The ..... of the number of moles of solvent to the total number of moles of solute and solvent is called .....
- c) Relative lowering of vapour pressure is equal to the ..... of the solute in dilute solutions.
- d) The colligative properties of 0.1 M glucose solution will be ..... than that of 0.1 M sodium chloride solution

Answer:

- a) Elevation, molality
- b) Ratio, mole fraction of the solvent
- c) mole fraction
- d) less

**Q4.** Why the boiling point of a solution is more than that of solvent?

**Q5.** The vapour pressure of pure water at 30°C is 31.80mm Hg. How many grams of urea should be dissolved in 100g of water to lower the vapour pressure by 0.25mm Hg? (Ans. 2.62g)

[Hint: Molar mass of urea is 60 ]